

The opinion in support of the decision being entered today
is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte VIJAYESHWAR D. KHANNA and
SRI M. SRI-JAYANTHA

Appeal 2006-3069
Application 10/661,273
Technology Center 2600

Decided: September 27, 2007

Before JOHN C. MARTIN, ALLEN R. MACDONALD, and
ST. JOHN COURTENAY III, *Administrative Patent Judges*.

COURTENAY, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1, 3-7, 9-15, and 17-22. We have jurisdiction under 35 U.S.C. § 6(b). We AFFIRM.

We note that claim 2 has been cancelled (Br. 2). Claims 8, 16, and 23 have been withdrawn from consideration (*id.*).

THE INVENTION

The disclosed invention relates generally to hard disk drives. More particularly, the disclosed invention implements a motion limiting element spaced from the suspension such that motion of the suspension away from the disk (e.g., in the event of a physical shock to the drive) is constrained by the motion limiting element. The distance between the suspension and the motion limiting element is further established to constrain movement of the suspension away from the disk such that an air bearing between the slider and disk is not substantially disrupted (Specification 3).

Independent claim 9 is illustrative:

9. A hard disk drive having a motion limiting element mechanically constraining movement of at least one suspension of the disk drive away from a disk of the disk drive in the event of a mechanical shock to the disk drive while operating at least in a protected region of the disk such that an air bearing between a slider supported by the suspension and the disk is not substantially disrupted.

THE REFERENCES

Kuroda	JP 03-168985	July 22, 1991
Onda	US 6,417,991 B1	July 9, 2002

THE REJECTIONS

Claims 1, 3-7, and 17-22 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

Claims 1, 3, 6, 7, 9-11, 14, 15, 17-19, and 22 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Kuroda.

Claims 1, 3-5, 7, 9-13, 15, and 17-21 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Onda.

Rather than repeat the arguments of Appellants or the Examiner, we make reference to the Briefs and the Answer for the respective details thereof.

ISSUES

We decide the following issues we have determined are dispositive in this appeal:

1. Whether independent claims 1 and 17 are indefinite as being misdescriptive of the disclosure.¹
2. Whether the cited Kuroda reference meets all the structural limitations of the representative claim.

¹ Although the terms of a claim may appear to be definite, inconsistency with the specification disclosure or prior art teachings may make an otherwise definite claim take on an unreasonable degree of uncertainty. *In re Cohn*, 438 F.2d 989, 1000-01, 169 USPQ 95, 98 (CCPA 1971) (“No claim may be read apart from and independent of the supporting disclosure on which it is based.”).

3. Whether the cited Onda reference meets all the structural limitations of the representative claim.

ANALYSIS

Issue 1

We consider first the Examiner's rejection of claims 1, 3-7, and 17-22 as being indefinite under 35 U.S.C. § 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which Appellants regard as their invention. Specifically, the Examiner concludes that independent claims 1 and 17 are indefinite because they are allegedly misdescriptive of the disclosure (Answer 4; *see also* note 1 *supra*).

In particular, the Examiner points to the portion of claim 1 that recites "an air bearing between the slider and disk is *not disrupted* [emphasis added]" (claim 1, last line).² The Examiner then points to a portion of the Specification where an air bearing between the slider and the disk is described as not *substantially disrupted* (Answer 4, emphasis added; *see also* Specification, Abstract, ll. 3-4 and p. 3, ll. 6, 7, and 18). Thus, the Examiner finds the language of claim 1 misdescriptive of the disclosure (Answer 4). The Examiner makes the same finding with respect to similar language recited in the last line of independent claim 17: i.e., "an air bearing surface is *not disrupted* by the movement of the data transfer element" (Answer 4, emphasis added).

² As explained at page 3 of the Answer, the copy of claim 1 in the Claims Appendix is incorrect.

The Appellants disagree (Br. 8). Appellants point to another portion of the Specification for descriptive support:

[t]he distance ‘C’ preferably is sufficiently small that in the event of a shock, the suspension 26 remains close enough to the associated disk 20 to avoid disrupting the air bearing between the slider 28 and disk 20.

(Specification at page 5, lines 19-21).

The Examiner responds that the disclosure at page 5, lines 19-21 of the Specification *does not preclude* a disruption of the air bearing surface (ABS) if the hard drive is subjected to sufficient physical shock (Answer 14).

We begin our analysis by noting that the Specification further discloses:

Stated differently, if the suspension 26 is constrained by the motion limiting element of the present invention to not move more than a distance “C” relative to the disk, *the slider 28 will not be peeled away from the disk*. Instead, within the distance “C” the operating vacuum between the slider 28 and disk 20 *will remain strong enough to maintain an operationally sufficient attraction between the slider 28 and disk 20* [emphasis added].

(Specification, p. 5, l. 21 through p. 6, l. 2).

After carefully considering the evidence before us, we conclude that Appellants’ claims 1 and 17 are not misdescriptive of the aforementioned portions of the Specification that disclose: (1) preventing slider 28 from being “peeled away from the disk,” and (2) maintaining “an operationally sufficient attraction between the slider 28 and disk 20.” (*Id.*). Therefore, we

do not agree with the Examiner that the claims are indefinite. Accordingly, we reverse the Examiner's rejection of claims 1, 3-7, and 17-22 under 35 U.S.C. § 112, second paragraph.

STATEMENT OF LAW

In rejecting claims under 35 U.S.C. § 102, a single prior art reference that discloses, either expressly or inherently, each limitation of a claim invalidates that claim by anticipation. *Perricone v. Medicis Pharm.*, 432 F.3d 1368, 1375-76, 77 USPQ2d 1321, 1325-26 (Fed. Cir. 2005) (citation omitted). The absence of a disclosure relating to function does not defeat a finding of anticipation if all the claimed structural limitations are found in the reference. *In re Schreiber*, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997).

ANALYSIS

Issues 2 and 3

We consider next the Examiner's rejection of claims 1, 3, 6, 7, 9-11, 14, 15, 17-19, and 22 as being anticipated by Kuroda and also the Examiner's rejection of claims 1, 3-5, 7, 9-13, 15, and 17-21 as being anticipated by Onda. Since Appellants' arguments have treated these claims as a single group which stand or fall together, we will select independent claim 9 as the representative claim because we find it is the broadest claim before us. *See* 37 C.F.R. § 41.37(c)(1)(vii)(2005).

Appellants contend that none of the relied-upon references teach or suggest establishing the distance between their respective motion limiting elements and respective suspension assemblies such that when the suspension assemblies move during shock, the air bearing surface (ABS) is not disrupted, substantially or otherwise (Br 5).

In particular, Appellants argue that neither Kuroda nor Onda precludes the possibility of the air bearing surface being disrupted when their respective suspension assemblies move during [physical] shock to the hard drive. Thus, Appellants conclude that neither Kuroda nor Onda inherently teaches the recited functional language of not disrupting the air bearing surface, substantially or otherwise (*id.*).

The Examiner disagrees. In particular, the Examiner explains how the functional language argued by Appellants reads on each of the Kuroda and Onda references, and also how the disputed functional language is being construed in light of Appellants' Specification (Answer 11-13).

In the Reply Brief, Appellants essentially restate the argument presented in the Brief. Appellants again contend that the Examiner has failed to show that either Kuroda or Onda inherently teaches the recited functional language (Reply Br. 1-4).

After carefully considering all of the evidence before us, we find it unnecessary to reach the functional language argued by Appellants to affirm the Examiner on this record. In particular, we note that our reviewing court has determined that the absence of a disclosure relating to function does not

defeat a finding of anticipation if all the claimed structural limitations are found in the reference. *In re Schreiber*, 128 F.3d at 1477, 44 USPQ2d at 1431.

In *Schreiber*, the court held that a funnel-shaped oil dispenser spout anticipated a claimed conical-shaped popcorn dispensing top, even though the function of popcorn dispensing was not taught by the reference, because the reference met all the structural limitations of the claim. *In re Schreiber*, 128 F.3d at 1479, 44 USPQ2d at 1433. Here, in the context of anticipation, we find Kuroda and Onda independently meet all the structural limitations of the representative claim, as follows:

Independent claim 9	Kuroda
9. A hard disk drive	<i>See</i> the hard disk drive shown in each of Figs. 1-3.
having a motion limiting element mechanically constraining movement of	We find upper and lower buffer members 13 mechanically constrain the movement (as indicated by the letters “a” and “a” prime in Figs. 1 and 3) of supporting member 2 (i.e., suspension) in response to physical shock applied to the drive (see Figs. 1-3).
at least one suspension of the disk drive away from a disk of the disk drive in the event of a mechanical shock to the disk drive	We find first supporting member 2 is a “suspension” element as claimed (Figs. 1-3).
while operating at least in a protected region of the disk	We find the region of hard disk platter 5 located under upper buffer member 13 and above lower buffer member 13 is a region protected from physical shocks to the drive, as shown in Figs. 1 and 2.

such that an air bearing between a slider supported by the suspension and the disk is not substantially disrupted.	We find the space between heads 4 and hard drive disk 5 is the air bearing (Figs. 1 and 3). We find the second supporting member 3 corresponds to the recited “slider supported by the suspension” (Figs. 1 and 3).
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Independent claim 9	Onda
9. A hard disk drive	<i>See</i> Onda’s HDD 10, Fig. 1.
having a motion limiting element mechanically constraining movement of	<i>See</i> Onda’s motion-limiting “elastic members 30, 31, 32, and 34,” col. 4, ll. 41-43, Figs. 2-5.
at least one suspension of the disk drive away from a disk of the disk drive in the event of a mechanical shock to the disk drive	<i>See</i> Onda’s “suspensions 21a-21d, col. 5, ll. 1-14, Figs. 2-5.
while operating at least in a protected region of the disk	We find the region of hard disk platter 13 that is protected from physical shocks to the drive by motion-limiting elastic members 30, 31, 32, and 34 is a protected region, as shown in Figs. 2-5.
such that an air bearing between a slider supported by the suspension and the disk is not substantially disrupted.	We find the space between Onda’s “flying head sliders 22a-22d” (col. 4, l. 19, Figs. 2-5) and hard drive disk platter 13 is the air bearing (Figs. 2-5).

Moreover, “when the PTO shows sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.” *In re Spada*, 911 F.2d 705, 708, 15 USPQ2d 1655, 1658 (Fed. 1990) (citation omitted). Where the Patent Office

has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). Shifting the burden under these circumstances is reasonable because of the PTO's inability to manufacture products or to obtain and compare prior art products. *Id.* at 1255, 195 USPQ at 433-34. Here, we find Appellants have failed to proffer any factual evidence that demonstrates error in the Examiner's findings of fact. Mere argument or conclusory statements are insufficient to rebut the Examiner's findings regarding Appellants' argued functional limitations.

For at least the aforementioned reasons, we sustain the Examiner's rejection of representative claim 9 as being anticipated by Kuroda and we also sustain the Examiner's rejection of claim 9 as being anticipated by Onda.

Pursuant to 37 C.F.R. § 41.37(c)(1)(vii), we have decided the appeal with respect to claims 1, 3-7, 10-15, and 17-22 in this group on the basis of the selected claim alone. Therefore, we sustain the Examiner's rejection of claims 1, 3, 6, 7, 9-11, 14, 15, 17-19, and 22 as being anticipated by Kuroda for the same reasons discussed *supra* with respect to representative claim 9. Likewise, we sustain the Examiner's rejection of claims 1, 3-5, 7, 9-13, 15, and 17-21 as being anticipated by Onda for the same reasons discussed *supra* with respect to claim 9.

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DECISION

Based on the findings of facts and analysis above, we conclude that the Examiner did not err in rejecting claims 1, 3-7, 9-15, and 17-22 under 35 U.S.C. § 102(b) for anticipation. However, we have reversed the Examiner's rejection of claims 1, 3-7, and 17-22 under 35 U.S.C. § 112, second paragraph. Because we have sustained at least one rejection for each claim on appeal, the decision of the Examiner rejecting claims 1, 3-7, 9-15, and 17-22 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

pgc

John L. Rogitz
Rogitz & Associates
Suite 3120
750 B Street
San Diego CA 92101